

What is claimed is:

1. A method of harvesting a section of a vessel having first and second ends from a human or animal body, the method comprising:
  - 5 exposing the vessel section to be harvested through an incision in the body; providing a light catheter; placing the light catheter in the lumen of the vessel, the light catheter being sufficient to illuminate substantially the entire vessel section with an intensity which is visible from an exterior of the vessel section;
  - 10 dissecting the vessel away from surrounding connective tissue of the body with a dissecting tool inserted through the incision; viewing the dissection of the vessel with a viewing element inserted through the incision; cutting the vessel at the first and second ends of the vessel section; and
  - 15 removing the vessel section from the patient's body.
2. The method of claim 1 wherein the light catheter comprises a transparent outer sheath enclosing a fiber optic cable, the fiber optic cable being connected to a light source.
- 20 3. The method of claim 1 wherein the light catheter comprises a transparent outer sheath enclosing a light transmissive fluid.
4. The method of claim 1 wherein the light catheter comprises a transparent outer sheath enclosing an internal chemical light source.
- 25 5. The method of claim 1 wherein the light catheter is placed in the lumen of the vessel from the first to the second end of the vessel section and wherein the light catheter is configured to transmit light along substantially an entire length of the light catheter positioned between the first and second ends of the vessel section.
- 30

6. A system for harvesting a section of a vessel from an incision in a human or animal body comprising:
- 5 a light catheter sized and configured to be inserted into a lumen of the vessel, the light catheter being sufficient to illuminate substantially the entire vessel section with an intensity which is visible from an exterior of the vessel section;
  - a viewing element configured to be insertable through the incision and capable of viewing the illuminated vessel section; and
  - 10 at least one tool used to harvest the vessel section, the at least one tool being sized to be inserted through the incision.
7. A method of harvesting a section of a vessel from a human or animal body comprising:
- 15 exposing the vessel section to be harvested through at least one incision in the body;
  - providing a light catheter;
  - placing the light catheter in the lumen of the vessel;
  - illuminating connective tissue adjacent an exterior of the vessel section with
  - 20 the light catheter placed in the vessel lumen;
  - dissecting the vessel away from the illuminated connective tissue with a dissecting tool inserted through the at least one incision;
  - viewing the dissection of the vessel from the illuminated connective tissue with a viewing element inserted through the at least one incision;
  - 25 cutting the vessel at proximal and distal ends of the vessel section; and
  - removing the vessel section from the patient's body.
8. The method of claim 7 wherein the light catheter comprises a transparent outer sheath enclosing a fiber optic cable, the fiber optic cable being connected to
- 30 a light source.

9. The method of claim 7 wherein the light catheter comprises a transparent outer sheath enclosing a light transmissive fluid.
10. The method of claim 7 wherein the light catheter comprises a transparent outer sheath enclosing an internal chemical light source.
11. The method of claim 7 wherein the light catheter is placed in the lumen of the vessel from the first to the second end of the vessel section and wherein the light catheter is configured to transmit light along substantially an entire length of the light catheter positioned between the first and second ends of the vessel section.